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Best Practices in Using a Course Management System Effectively

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Introduction

Session Description

How can the features of a Course Management System be used to effectively support a traditional face-to-face class? In this session, faculty who have had successful experiences using a CMS will share tips, suggestions, cautions and guidelines based upon those experiences. Specific topics to be addressed include structuring online discussion, utilizing quizzing features and use of the CMS to enhance collaboration from student-to-student and student-to-faculty.

How do we define “effective”?

Since we are talking about effective practices, some definition of the term “effective” will establish some criteria for what counts as a “best practice.” The basic definition is that the practice promotes active student learning. These practices reflect an approach to teaching and learning that emphasizes the student’s involvement in his or her learning, using such concepts as the “Classroom Flip” (Baker, 2000), the Inverted Classroom (Lage, Platt & Treglia, 2000) and “deep learning” (Weigel, 2002). These practices are often explicitly connected with the “Seven Principles for Effective Undergraduate Education” (Chickering & Gamson, 1987, 1999; Chickering & Ehrmann, 1996).

General Use of a CMS

Pedagogical note: A CMS is often just a tool—or “lever” (Chickering & Ehrmann, 1996)—for moving away from “information transfer” to an “active learning” approach. While the focus of faculty and students efforts in using a CMS are often on learning the tool, the pedagogical implications of its use need to be emphasized.

- Effective Practice: Students often come into our classes conditioned to expect the faculty member to provide them with the information they need to know to do well on the exam. When a “Classroom Flip”-type approach is used, students are often confused and frustrated and think either the faculty member isn’t doing his or her “job” or that the tool is just being used for its own sake. It is important that the faculty member using this type of approach talk with his or her students about how the class is structured and why it is set up this way. Once students have the concept explained to them, they understand why the course is different from their expectations and begin adapting to the change.



Course Content

Pedagogical note: Providing online material can promote student “time on task” (Principle #5) and provide the rich environment that “communicates high expectations” (Principle #6). A key feature of Weigel’s (2002) “deep learning” approach is the knowledge room—actually a suite of rooms that includes a Research Center with a Research Library where the professor can place “[c]ontent that might otherwise have been included in course readings or lectures” (p. 77). In a CMS, the Course Content area can fulfill that function.

- Effective Practice: Use the Course Content page to post lecture notes, PowerPoint presentations, important Web sites and any other important information that you present in your class so that students can print/download course materials.
- Effective Practice: If your CMS allows it, include self assessment quizzes within the Content area, so that assessment is integrated with the content.
- Effective Practice: The “Classroom Flip” approach suggests moving some course content into the CMS in order to open up more time in the classroom for faculty-student interaction, small group work and other “active” learning exercises.
- Effective Practice: Use the Course Content area to provide “extra” material—for example, suggestions about further reading on class topics that go beyond the text’s discussion. Students interested in learning more will follow up by reading some of the suggested resources.

Threaded Discussion

Pedagogical note: Student discussion is implicated in almost all of the Seven Practices. It is also essential to Weigel’s (2002) “robust communities of inquiry” (p. 65). It is used in the “Classroom Flip” model to get student engagement with class concepts and for peer-to-peer assessment.

- Effective Practice: To allow students to become familiar with how to use the Discussions area, have an initial “practice” discussion that has students introduce themselves to everyone else, and state what they want to learn from the course, etc.
- Effective Practice: Give the students a set of guidelines of what you expect in class discussions in order to establish criteria for what “counts” as participation in online discussion. Although the CMS will provide a count of how many postings a student has made, it is best if the faculty member makes some assessment of the quality of those postings. My general criterion on this is that a posting needs to either bring in new information or raise a question that advances the discussion. Postings such as “I agree” or “Nice job!” don’t count for the class participation grade. Do not ignore bad discussion behavior; privately request change in poor discussion behavior. Many faculty provide a handout that goes into detail on the rubric for assessment of postings, that provides examples of “good” and “bad” postings and that establishes etiquette guidelines. The “Classroom Flip” handout entitled “Keeping in Touch” provides some examples of faculty guidelines.



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- Effective Practice: Conduct required online discussions that cover the reading material that you wish students to complete for the next class meeting. This assures that students will have read the material before class.
 - Effective Practice: Keep a transcript of good discussions and provide them as exemplars for succeeding classes. It will help students to see good examples of what they should be accomplishing in the on-line discussion.
 - Effective Practice: Use private email for prompting interaction. Using private messages, the instructor can urge participants to join in the discussion, to initiate debates, and to solicit suggestions.
 - Effective Practice: Use the discussions area to post general classroom announcements.
 - Effective Practice: Provide lots of positive feedback to encourage participation. As the discussion continues, start asking more probing questions ("Why do you say that?" "Does everyone agree with this conclusion?" "What if...").
 - Effective Practice: Present conflicting opinions. Instructors can draw attention to opposing perspectives, different directions, or conflicting opinions that could lead to further discussion and peer critiques.
 - Effective Practice: Use staged due dates for threaded discussion. If students are only given a single due date by which discussion must be done, they will tend to wait until the last minute, frustrating the goal of having an informed conversation develop among the students. Instead, have a date by which an initial posting is due, a date by which a response to the initial posting is due and a date by which the original poster is to have read the responses and provided responses to those postings.
 - Effective Practice: Use the threaded discussion area for class "presentations." Faculty will often have students present a report and then have class discussion of the report. The threaded discussion area of your CMS can facilitate this process by having students post their reports there prior to the class session in which the discussion will be held. This allows students to obtain copies of the presentation before class. The presenters don't have to bring copies to class and the discussion will benefit from students having read the report prior to class discussion. This also provides an online thread that can be used for out-of-class questions—either clarification prior to class or continued discussion after class.
 - Effective Practice: Weigel (2002) refers to the "*normal reservations about grading class participation in the brick-and-mortar classroom*" (p. 90, italics in the original). He is referring to the problem of penalizing students who need time to think and prepare an answer before participating in class discussion for not being involved in the quick give-and-take of most in-class discussion. In order to avoid that problem, give class participation grades for *both* in-class *and* on-line discussion and then either count the higher of the two or an average of the two in assigning a class discussion grade. That way, students have a chance to receive a grade in the arena in which they feel most comfortable participating.
 - Effective Practice: Create a frequently asked question (FAQ) list in the discussions area. When you receive more than two e-mails asking for the same information/clarification, add a hint or explanation to the FAQ list. Make sure to refer students to the list so that they become accustomed to checking it first.



- Suggested Activity: Have students recommend Web sites that supplement the topics being covered.
- Suggested Activity: Assign an article to read and require students to post a short summary in the Discussions area. Variation: assign different articles to different groups but require only one summary per group.

Shared Group Spaces

Pedagogical note: Several of the Seven Principles, including Uses Active Learning Techniques and Develops Reciprocity and Cooperation Among Students, can be addressed by student teams working on realistic problems or case studies. A major focus of Wiegel's (2000) "deep learning" is the use of teams of students that work on exercises together and who provide peer feedback on one another's work.

- Effective Practice: This one relates to Threaded Discussion, as well. When you set up teams of students to work on a project, provide them with a private discussion area where they can work on the project without having the other students in the class privy to their discussions. This is especially important when you have teams competing against one another on the same project.
- Effective Practice: Provide student teams with an area where they can put copies of the work products they are developing (for example, drafts of documents, spreadsheets, presentations, etc.). Sometimes your CMS may not have an area specifically for this, but you can provide it with a little creativity. For example, WebCT has what it calls a "Student Presentation Area." The title often limits faculty to think of this only as an area where students put copies of presentations or Web pages. Instead, think of this as a place for private shared group spaces. You can assign students to groups in this area and they then are given shared hard drive space to which only they (and the faculty member) have access. They can provide access to final products by creating an Index Web page that has hyperlinks to documents they wish to make public. If your CMS does not have any way to create a shared workspace, then check with your IT folks about getting some space on a network drive that can have limited access. (*Note: In WebCT, if you create your teams in the Student Presentation Area, you can simultaneously create a private threaded discussion area for the team from there.*)

Assignments

Pedagogical note: A major emphasis in current learning theory is on "active learning." Many theorists also emphasize having students work in teams, in order to promote learning from peers (#2: Good Practice Develops Reciprocity and Cooperative Among Students), to establish a "learning community" that can support the student—Wiegel's (2002) "scaffolding" (p. 10)—and to prepare students for the skills for working within collaborative environment, which Weigel argues is essential for the "information-based New Economy" (p. 17). The Assignments areas of your CMS can be used for "real life," practical and learning-team based approaches to assignments.



Pedagogical note: The Assignment “drop box” feature of most CMSs provide a place for instructor comments and/or allow the instructor to upload an electronically “commented” version of student assignments—allowing for quick feedback to the student on his or her work (#4: Good Practice Gives Prompt Feedback).

- Effective Practice: Inquiry-based assignments that incorporate “real time” information from the Internet are best supported by CMS. The instructor creates and posts inquiry-based Webquests (Dodge 1996) in the assignment section. Usually the instructor has identified several outstanding Web sites that students should use for their investigation. Students click on the document’s active links to quickly access the information and conduct their investigation of the problem. The Web sites are ones that contain “real time” or “up to the minute” data that are not available to students through most other sources. Students write their hypotheses and explanations in Microsoft Word, include any other sources they find and post their results to their student web space where others read and respond to the posting. (See the *Suggested Activity* at the end of this section that puts this practice into operation.)
- Effective Practice: When students must evaluate one another’s work, rubrics with benchmarks and/or descriptors provide structure and guidance for their decision making process. The class can be involved in developing the rubrics or the instructor might want to take that responsibility. At the appropriate time, rubrics are posted to the quiz section of the CMS where students complete their evaluations online. Students often feel more comfortable evaluating one another outside the classroom and, while the quiz feature makes this very private, the rubric provides specificity about different levels of performance.
- Effective Practice: Place comments and feedback within your students’ submitted assignment files (for example, using the *Track Changes* and *Comment* features in Word and Excel) and then re-upload it into your CMS for students to download and review.
- Effective Practice: There are more options than just an “Assignment Drop Box” for student submission of work. One other option is to have a thread in your discussion area for a particular assignment and then have students post the assignment (either in the message or as an attachment) to that thread. This is a good method to use if you have students prepare reports that are to be shared with the rest of the class. Plus no one can lose the handout, since it’s always available on-line!
- Effective Practice: Another alternative to a “Drop Box” is to use shared group space (see above for a description of that). For example, you could create a “shared” space for each student and have the students submit their work there. This collects all of a student’s work in the same place, provides a space where the faculty member can provide comments (for example, a “commented” version of a report, using Word’s *Track Changes* and *Comments* features) for feedback to the student. In addition, this can serve as a “portfolio” space, since the student could provide others with access to those work products (in WebCT, through an Index page with hyperlinks to the documents to be made public). Another option is to create a “shared” space by assignment—all students are allowed to post a particular assignment to one area. You will find that students look at one another’s work and talk to one another about their assignments when they have this kind of access to their peers’ assignments.



- **Effective Practice:** When using shared spaces (team, individual or assignment) it is important to establish file naming protocols. For example, individual assignments can be named *xxx_intro.doc* or *xxx_ex01.html*, where *xxx* = the student's initials. Team assignments can be named *00_step01.doc*, where *00* = the team's number. The protocol for naming individual assignment should be given in the instructions for that assignment. This (1) avoid students overwriting one another's files in a shared assignment space and (2) allows you to quickly find a file among what can be a long list of files in a shared space. If you don't have a clear protocol and leave the naming to the whim of the student or team, you will spend an inordinate amount of time trying to figure out which file is the one you are looking for—and run the risk of two students naming the file the same.
- **Suggested Activity:** An example of a Webquest is to provide students with the K-12 State of Ohio Website and ask students to investigate two school systems, one designated as high performing and one low performing. They must link to the school systems' Web sites, review state data on each district, and generate hypotheses about the contributing factors for each one receiving its designation and the possible causes for these factors.
- **Suggested Activity:** An instructor can group students to work on a class project. In Adolescents Literature the class is to create a Web site on Native American Literature. Students are then grouped according to literature selections with one group being responsible for the introductory section for the entire site. Within their group students create a Web site about their Native American tribe, the author, the book and its literary elements, and activities that can be used to teach the book. When each group finishes its Web site, the Web site is posted to a group section. Other groups can critique website before they are then posted to a college website for area teachers. The CMS allows the students and the instructor a sheltered environment to create their project, evaluate them, and develop a finished product.

Assessment

Pedagogical note: Online quizzes or self-assessment tests help meet at least two of the Seven Principles: #4: Gives Prompt Feedback and #5: Emphasizes Time on Task. Providing different types of assessment based upon different learning styles can also meet #7: Respects Diverse Talents and Ways of Learning.

- **Effective Practice:** By all means, use whatever feedback function your CMS's quiz area provides. "Prompt Feedback" doesn't get much faster than immediate! WebCT, for example, allows the course designer to create individual feedback for each response of a multiple choice question. Although writing feedback for each response takes more time, the faculty member can anticipate what would cause students to pick that distracter and, in the feedback for that response, suggest to the student what was overlooked or misunderstood.
- **Effective Practice:** Use the on-line quiz as both an "encouragement" for students to have done their reading prior to class and to allow students to check up on their understanding of the text reading. This increases the amount of time students spent thinking about course materials and helps deal with initial misunderstandings.



- Effective Practice: Use on-line quizzes as formative, rather than summative, evaluation. (See the “Classroom Flip” handout entitled “Checking Up” for a discussion of the differences between the two methods of evaluation.) They can provide formative assessment for both the student and the faculty member. For the student, the quiz allows assessment of one’s own understanding of course material. For the faculty member, the quiz indicates common misunderstandings that need to be addressed in class. For example, some faculty have quizzes over class readings cut off an hour or more before class time. They then check the results before meeting with the students and structure the day’s discussion around the items students tended to miss on the quiz. That way time is not spent in class covering material the students already understand. It is used to address the areas where the students need help, instead.
- Effective Practice: If you are using the on-line quiz to allow students to check up on their understanding of text readings and your CMS allows you to set an amount of time that has to pass between attempts, use that feature. Using a “time between attempts” avoids having the students just jump right back into the quiz and try to “guess better” the second time. In your feedback, direct students back to the relevant section of the text reading. Some students will follow-up from your feedback and re-read the text on that point. Even for those who don’t, the question is still in the back of their mind in the interim.

Course Management

Pedagogical note: It is important for students to be kept apprised of their progress in a course and for the faculty member to track each student’s work. The Course Management features of a CMS provide functions for both.

- Effective Practice: Students like to keep track of how they are doing in their course throughout the semester. Use the CMS to post your online gradebook and post grades during the semester.
- Effective Practice: Use the student tracking features of your CMS to periodically check on student involvement in the course. You can keep track of last access to the course, amount of time spent in the course, content pages viewed, number of discussion messages read and posted, etc. Your CMS may also allow those lists to be sorted, allowing you to quickly identify students who don’t seem to be keeping up with the class and who need some personal intervention.



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Other Resources

“Classroom Flip” materials: www.imowa.org – From the home page, select the Curricula link and then the “Classroom Flip” link for access to materials on the “Flip” model. They provide both a pedagogical discussion of key areas of a CMS and provide step-by-step instructions on the use of Blackboard and WebCT.

Materials related to the Seven Principles are available from:
Seven Principles Resource Center
Winona State University
P.O. Box 5838
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A site allowing exploration of Weigel’s “Knowledge Rooms” approach is available at <http://www.knowledgeroom.com/>